

A.G & S.G Siddhartha Degree College of Arts & Science, Vuyyuru

DEPARTMENT OF ZOOLOGY

One day National Level Workshop on Sustainable Aquaculture Management

04.02.2023

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CHIEF GUEST



Dr.P.Sankara Rao
JDF (Aquaculture)
O/o Commissioner Of Fisheries, AP

Resource Persons



Dr.Ramesh Rathod,
Scientist,
Regional Research Centre
ICA-Central Institute Of Fresh Water Aqua Culture



B.Appala Naidu
Principal Scientist Officer,
RGCA Tilapia Project

CHIEF GUEST
SIDDHARTHA DEGREE COLLEGE OF ARTS & SCIENCE
VUYURU, AUTONOMOUS COLLEGE
In Technical Collaboration with
Fisheries Dept, Krishna Dist. A.P
One Day National Workshop
On

Sustainable Aquaculture Management
On 4th February, 2023
(SAM - 2023)



Sponsored by
Siddhartha Academy of General and
Technical Education (SAGTE)

Organised by
Department of Zoology
in association with IQAC

AG & SG Siddhartha Degree College
of Arts & Science (Autonomous)
Vuyyuru - 521165

About the College

The AG&SG Siddhartha Degree college of Arts & Science is an autonomous academic institution of higher learning located at Vuyyuru 25kms from Vijayawada in Krishna District A.P. The College was established in 1975 to take education to the door steps of the rural people of this area. Since its inception the college has been catering effectively to the educational needs of the local aspirants besides fostering values to shape students into disciplined and responsible citizens. Tune with the momentum of changing trends in education at National and International levels, the college has adopted the programmes in Arts & Science disciplines.

At present the college is offering ten under graduate programmes of B.A., B.Com (G), B.Com (E-Commerce), B.Com (S), B.Sc (MPC), MPCs, MSCs, MCCs, B.Sc. BZC, Aquaculture and two post graduate programmes of M.Sc Chemistry and M.Sc Computers science. The college has well furnished class rooms, a library with more than 60,000 books, over 100 journals and magazines, fully equipped laboratories, E-class rooms, RUSA Digital Lab, virtual class rooms, English language internet facilities, well maintained indoor & outdoor stadium, an auditorium, Gymnasium and a play ground.

The staff works with dedication and render services to secure credible results. The management involves actively in every aspect of students progress and career to prepare the youth of this rural area for a bright future in this globalised world besides imparting knowledge and skills that make them highly qualified human resources and to make them responsible citizens.

The college has been assessed and accredited with grade 'A' CGPA of 3.05 by the National Assessment and Accreditation Council (NAAC) and has been certified with the ISO-9001:2015

Venue
Seminar Hall, AG&SG Siddhartha Degree College
of Arts & Science
Vuyyuru



Aims of Workshop

The workshop aims to explore the basic dimensions of sustainable aquaculture as it is the need of the present moment. Sustainable aquaculture is projected to be the prime source of sea food by 2030, as demand grows from the global middle class and wild capture fisheries approach their maximum take. When practiced responsibly, fish farming can help to provide livelihoods and feed a global population that will reach 9 billion by 2050.

The workshop is designed to expose the participants to both theoretical and practical knowledge. On completion participants would develop skills in feed, health and water quality management to accelerate sustainable aquaculture.

Workshop Objectives

1. To provide knowledge on management practices in aquaculture.
2. To provide hands on training on use of test kits and standard methods for estimation of water quality.
3. To review current trends and practices in sustainable aquaculture by eminent resource persons.
4. To have an understanding on resource conservation and food production.
5. To furnish employment opportunities for rural youth and fishing communities.
6. To learn the usage of various methods of disease control.
7. To implement more ecologically sustainable practices.
8. Transition to use of closed systems and low discharge systems, especially those that provide total containment of fish and recovery or reuse of wastes.
9. Significantly decrease or eliminate the dependence on wild fisheries
10. Develop sustainable aquaculture operation that provide long term social and economic benefit to communities



REGISTRATION FORM

Name: _____
Designation: _____
Qualification: _____
Institution: _____
Professional Experience: _____
Address for Correspondence with email & phone number: _____

Registration Fees :-

- | | |
|-----------------------------|-----------|
| 1. Student | Rs. 100/- |
| 2. Faculty/Research Scholar | Rs. 250/- |

Spot Registration

Give a man a fish and you feed him for a day,
teach a man to fish and you feed him for a
lifetime

-Maimonides



A.G & S.G Siddhartha Degree College of Arts & Science, Vuyyuru

DEPARTMENT OF ZOOLOGY

One day National Level Workshop on Sustainable Aquaculture Management

04.02.2023

Program Sheet

Inauguration

10.00AM: Inviting the Guests on to the dais by Sk. Ayesha and P. Sravanthi III

B.Sc. Aquaculture

10.05: Prayer by D. Sruthi II BZC

10.10 AM: Lighting the Lamp

10.15 AM: Presidents Opening Remarks by Sri. K. Satyanarayana Principal

10.20 AM: Address by distinguished Guests Sri.T. Sri hari Rao garu AG& SG SC

10.25 AM: Introduction of Workshop by D. A. Kiranmayee HOD Zoology

10.30-11.00 AM: Address by Chief Guest by Dr. P. Sankara Rao (JDF) Aquaculture A.P.

Tea Break: 11.00 to 11.15. AM

Session I-11.15-12.15: Dr. Ramesh Rathode, Scientist Central Institute of Fresh water Aquaculture (CIFA) Vijayawada

Session II 12.15-1.15: Sri. B. Appala Naidu, Principal Scientist, RGCA, Manikonda
Tilapia Project

Lunch break: 1.15- 2.15

Session III 2.15- 3.15 Practical on water Quality management

Session IV:3.15-4.15 Practical on probiotics, Feed and Disease Management

4.15 -5.00 PM: Valedictory Function

The Department of Zoology has organized a One Day National Workshop on “**Sustainable Aquaculture Management**” on **04.02.2023**.

Aims of the workshop:

The work shop aims to explore the basic dimensions of sustainable aquaculture as it is the need of the present moment. Sustainable Aquaculture is projected to be the prime source of seafood by 2030, as demand grows from the global middle class, the wild capture fisheries approach their maximum take. When practiced responsibly, fish farming can help provide livelihoods and feed a global population that will reach nine billion by 2050.

The work shop is designed to expose the participants to both theoretical and practical knowledge. On completion of the workshop, participants would develop skills in feed, health and water quality management to accelerate sustainable aquaculture.

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Fisheries and Aquaculture provide nutritional security and employment to over 16 million people in the country. India has shown continuous and sustained increments in fish production since independence. Over the last few decades, the fisheries and aquaculture sector have seen a dramatic change in its dynamics with an overall expansion of production capacity, trade business, and food consumption.

Yet, despite its inspiring performance, the sector faces several issues throughout the value chain, relating to world-class infrastructure, technology, safety and regulatory framework, facilities, value addition, global demand etc. To deliberate on the key interventions needed to strengthen and sustain the Fisheries and Aquaculture Industry, and pave a roadmap with implementable actions, the Department of Zoology has organised a National Level Workshop on “Sustainable Aquaculture Management” on 2nd February 2023.

The number of Registrations for the workshop is 208 with nearly 176 students and 32 faculty members from different colleges.

Inaugural Session:

The National Level Workshop was inaugurated by Dr. P.Sankara Rao Joint Director of Fisheries Krishna District Andhra Pradesh. Sri. K. Satyanarayana, Principal of the college, Dr. Ramesh Rathode, Scientist, Regional Research Centre ICA Central Fisheries of Fresh

Water Aquaculture, and Sri. B. Appala Naidu, Principle Scientist, RGCA, Tilapia project also graced the program.

Dr. P. Sankara Rao Joint Director of Fisheries Krishna District Andhra Pradesh is the Key note speaker for the workshop. The JD urged that Colleges should serve as centres of excellence in research and extension of freshwater aquaculture. He wished the Workshop would come up with concrete plans for sustainable freshwater aquaculture to feed the billion. In his Key note address he gave detailed information about the present scenario of fisheries resources and infra structure in Andhra Pradesh. He gave statistics on status of fish and shrimp production in India and Andhra Pradesh. He added a note on major challenges of Aquaculture industry in the present scenario. He gave information to the participants about the Government initiatives for promotion of Aquaculture sector like Rythu Barosa Kendralu, Kisan Credit Card etc. He gave details of the Acts and Rules of the State Government. He provided information about the services offered by the Department in online registration of Aqua farmers.

A small tea Break is given for 10 minutes.

Technical Session I: In the first Session **Dr. Ramesh Rathod** Scientist, Central Institute of Fresh Water Aquaculture (CIFA) delivered a lecture on Present Status and Future Prospects of Fresh Water Aquaculture in Andhra Pradesh. He explained that India is blessed with an abundance of Fishery Resources both marine and Inland. He threw light on the Bheri System in West Bengal, Pokkali Culture in Kerala, Ox Bow lakes in Bihar and integrated culture in North eastern India. He enlightened the participants with the recent developments in Aquaculture like Aquaponic System and Biofloc systems. Lastly, he provided information about the genetically improved breeds of fish and prawn produced by CIFA. They are Jayanthi Rohu, CIFA-GI Scampi, catla, Shining Barb, striped cat fish, Pangasianodon hypophthalmus, Murrel, Magur and Singhi etc.

Technical session II: In Technical Session II Sri. B. Appala Naidu, Principle Scientist, RGCA, Tilapia project (GIFT), Manikonda provided information on how RGCA proposes to Achieve sustainability in Aquaculture in India

He said that Sustainability is achieved through Diversification - by developing technologies for seed production and farming of new species like Mud Crab, Groupers, Seabass and Cobia and Tilapia. He added the following points on achievement of sustainability

- Sustainability through Domestication of Black Tiger Shrimp & Fresh water Prawn (Scampi) and introduction of new species – The Pacific white Shrimp – *L. vannamei*...
- Sustainability through Development of Live feed production technologies for Artemia, Rotifer and Copepods for support of and enhancing bio security in Aquaculture systems...
- Sustainability through Infrastructure development by Introduction of RAS or Recirculation Aquaculture Systems for enhancing production capacities and addressing bio security concerns.
- The following shrimp pathogens are being screened by PCR technique at RGCA , Manikonda

- 1. WSSV (White spot syndrome virus)
- 2. TSV (Taura syndrome virus)
- 3. YHV (Yellow head virus)
- 4. GAV (Gill associated virus)
- 5. IMNV (Infectious Myonecrosis Virus)
- 6. MoV (Mourillyan virus)
- 7. LSNV (Laem Singh Virus)
- 8. SMV (Spawner associated mortality virus)
- 9. IHHNV (Infectious Hypodermal & Haematopoietic Necrosis Virus)
- Lastly, he concluded that the availability of an optimal diet is crucial factor for the sexual maturation and reproduction of shrimp.

The weight of the ovaries of maturing shrimp can increase four- to nine-fold in approximately one week and in that time sufficient nutrients need to be accumulated into the egg yolk to sustain the normal development of the embryos and pre-feeding larvae. He concluded that food does also represent the highest operation cost in most brood stock management facilities

Technical Session III, IV:

These two sessions are practical oriented. The practicals are designed in such a way that the students can assess different water parameters such as PH, Alkalinity, Dissolved Oxygen, and Turbidity with the help of Standard procedures and Test Kits.

In addition, practical Knowledge is provided in varieties of food that are consumed in different stages of Prawn and Fish.

Information is provided to participants on Probiotics and SPF varieties of fish and prawn especially in *Letopenaeus vennameii*.

Valedictory Session:

The chief Guest for the Valedictory Session was Sri. J Nageswara Rao, Head Dept. of Chemistry and Sri. J. G. V Vinay Kumar Director of Junior College. They appreciated the Department of Zoology for Conducting a National Level Seminar on “Sustainable Aquaculture Management” which is the need of the hour and is beneficial to the students for self- Employment.

Feed back is taken from the participants. All of them are fully satisfied with the Workshop concept and the practical’s organised by the Zoology Department. Certificates were issued to all the Participants. Vote of Thanks is proposed and the workshop is closed with National Anthem.

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Photos of National Workshop



Sri. T. Sri Hari Rao Convenor of the college with Zoology faculty and resource Persons of the National workshop



Decorated Seminar Hall for National Workshop



Resource persons and Dignitaries on the Dias along with Principal K. Satyanarayana and HOD of Zoology D.A. Kiranmayee



Lightening of Lamp By resource persons and Dignitaries of the Workshop



**Sri. T. Sri Hari Convenor of the college
addressing the students**



Resource persons with Faculty



Key Note address by Dr. P.Sankara Rao Joint Director of Fisheries Krishna District



Key Note address by Dr. P. Sankara Rao Joint Director of Fisheries Krishna District



Dr. Ramesh Rathode Scientist CIFA giving his presentation to the Participants



Dignitaries and participants at the National Workshop



Sri. B. Appalanaidu RGCA delivering his presentation to the participants



Sri. B. Appal Naidu RGCA giving his presentation to the participants



Sri. J. Nageswara Rao HOD of Chemistry addressing the students at the Valedictory



Sri. K. Satyanarayana, Principal addressing the students at the Valedictory session



Participants at the National Level Workshop



Distribution of Certificates to AvaniGadda Degree College Students



Distribution of Certificates to JKC Degree College Students, Guntur

BROCHURE OF NATIONAL WORKSHOP

PAPER CLIPPINGS



ఉయ్యూరు ఎజీ, ఎన్ జి డిగ్రీ కళాశాలలో సెమినార్

**జంతు శాస్త్ర విభాగము మరియు వి.క్యూ.ఎ.సి ఆధ్వర్యంలో
సుస్థిర ఆకాశ కల్చర్ లంకంపై లబ్ధిపాపం
వివిధ కళాశాలల నుంచి పాల్గొన్న విద్యార్థులను విద్యార్థులు**

ఉయ్యూరు (రమేష్) ప్రజాకాంక్ష, ఫిబ్రవరి, 05 : ఉయ్యూరు స్థానిక అడుగుమిల్లి గోపాలకృష్ణయ్య మరియు చెరుకు రైతుల సిద్ధార్థ డిగ్రీ కళాశాల జంతు శాస్త్ర విభాగము మరియు వి.క్యూ.ఎ.సి జాతీయ పర్యవేక్షకులు, సెమినార్ హాల్ నందు సుస్థిర ఆకాశ కల్చర్ నిర్వహణ అంశముపై విద్యార్థులకు ప్రయోగాత్మక ముగా అవగాహన కల్పించడానికి శనివారం ప్రారంభించినారు. ఈ కార్యక్రమమునకు కళాశాల ప్రెసిడెంట్ కె. సత్యనారాయణ అధ్యక్షత వహించారు. ఈ కార్యక్రమంలో ముఖ్యఅతిథిగా డాక్టర్ పి. శంకర్ రావు విద్యార్థులను ఉద్దేశించి ఆకాశ కల్చర్ జీవనోపాధి కార్యచరణ ఉపయోగపడుతుంది. ప్రపంచములోనే ఆకాశరంగం వేగంగా అభివృద్ధి చెందుతుంది. దీని వలన అహారం, ఔషధం, ఉద్యోగంలో ఆకాశరంగం ముందుకు వెళ్తుంది అని వివరించారు. ఈ వర్క్ షాపుకు రిసోర్స్ పర్సన్ గా విచ్చేసిన డా. రమేష్ రాథోడ్ సీనియర్ సైంటిస్ట్ రోజునల్ రీసెర్చ్ సెంటర్ ICA - సెంటర్ ఆఫ్ ఇన్ఫర్మేషన్ ఆఫ్ ఫ్రెష్ వాటర్ ఆకాశ కల్చర్ విజయవారు వీరు విద్యార్థులకు సుస్థిరమైన ఆకాశ కల్చర్ నిర్వహణలోని మెరుకులు, యోజనాపత్ర పద్ధతులు, నీటి యొక్క ప్రామాణిక విలువలను ఏలా నియంత్రించుకోవచ్చు అని వివరించారు. ఈ వర్క్ షాపుకు రిసోర్స్ పర్సన్ విచ్చేసిన ప్రెసిడెంట్ కె.ఎస్.ఆర్. అయిన బి. అప్పల నాయుడు RGICA

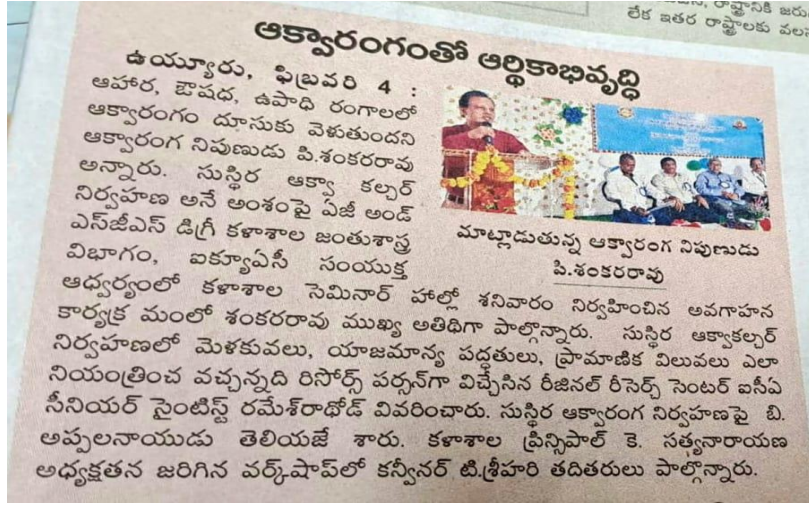


సుస్థిరమైన ఆకాశరంగము నిర్వహణ పై వేవలకు, రోయలకు ఎటువంటి అహారం అందించాలి, ఏవిధంగా వాటిని వినియోగించాలి అనే అంశంపై చక్కగా వివరించినారు. మధ్యాహ్నం సమయంలో సుస్థిరమైన ఆకాశ కల్చర్ నిర్వహణతో, ప్రయోగాత్మకంగా చూపించడానికి నీటితో పున్న ఆక్సిజన్, అమోనియా, నైట్రేట్, పిపెన్, పక్సిడిటి, సెలినిటిని ఏలా చేయాలి అనే విషయంపై డిగ్రీ బి.ఎస్.సి. ఆకాశ కల్చర్ విద్యార్థులు ఈ పర్క్ షాప్ కు వేరు వేరు కళాశాలల నుండి విచ్చేసిన 15 మంది విద్యార్థులకు ప్రయోగాత్మకంగా చేసి చూపించినారు. ఈ కార్యక్రమంలో కళాశాల కన్వీనర్ డి. శ్రీహరి మరియు డిగ్రీ కళాశాల ప్రెసిడెంట్ కె. సత్యనారాయణ లను మరియు జంతు శాస్త్ర విభాగము ఇతర అధ్యాపకేతర, అధ్యాపక సిబ్బందిని ఇతర కళాశాల విద్యార్థులను అభినందించినారు. అంతేకాకుండా వేరు వేరు కళాశాలల నుండి వచ్చిన విద్యార్థుల విద్యార్థులకు సర్టిఫికేట్ ప్రధానం చేసినారు.

ఆకాశ కల్చర్ తో జీవనోపాధి

ఉయ్యూరు, న్యూస్ టుడే: యువతకు ఆకాశ కల్చర్ జీవనోపాధి కార్యచరణగా మిలే ఉపయోక్తంగా ఉంటుందని రాష్ట్ర మత్స్యశాఖ కమిషనర్ డాక్టర్ పి.శంకరరావు అన్నారు. శనివారం స్థానిక ఏజీఎస్ జీఎస్ కళాశాలలో జంతు శాస్త్ర విభాగం ఆధ్వర్యంలో 'సుస్థిర ఆకాశ కల్చర్ నిర్వహణ' అంశంపై జరిగిన కార్యశాలలో ఆయన ముఖ్యఅతిథిగా హాజరై ఆకాశరంగ స్థితిగతులు, భవిష్యత్తు ప్రయోజనాలను వివరించారు. కార్యక్రమానికి కళాశాల కన్వీనర్ డి. శ్రీహరిరావు అధ్యక్షత వహించారు. రిసోర్స్ పర్సన్ గా పాల్గొనిన రీజినల్ రిసెర్చ్ సెంటర్ సీనియర్ శాస్త్ర వేత్త డాక్టర్ రమేష్ రాథోడ్, ఆర్ జీఎస్ ప్రెసిడెంట్ సైంటిఫిక్ అధికారి అప్పలనాయుడులు మాట్లాడారు. ప్రెసిడెంట్ కె. సత్యనారాయణ, కార్యనిర్వాహక కన్వీనర్ డి.ఎ.కీర్ణ, జ్యుయి, కార్యదర్శులు డాక్టర్ వి.సుబాషిణి, కె.పద్మజలు పాల్గొన్నారు.

**మాట్లాడుతున్న రాష్ట్ర మత్స్యశాఖ కమిషనర్
డాక్టర్ పి.శంకరరావు**



CERTIFICATE

